

AMENDMENTS TO THE CLAIMS

Please amend the claims as follows:

1. (CURRENTLY AMENDED) An identification photo system that obtains image data for an identification photo of a person from image data of the person, said identification photo system comprising:

an automatic correcting device that automatically corrects the image data of the person,

wherein said automatic correcting device detects a ~~facial-background~~ area in said image data, abstracts a person area based on the ~~facial background~~ area, compares a size of the person area in said image data with a predetermined size, and changes the size of ~~the~~ an image of the person so that the size of the person area is the predetermined size.

2. (CURRENTLY AMENDED) The identification photo system as defined in claim 1, wherein said automatic correcting device corrects at least one of density, color balance, luminance and saturation of ~~an~~ the image of the person.

3. (ORIGINAL) The identification photo system as defined in claim 1, wherein said automatic correcting device comprises:

a skin pigmentation area abstracting device that abstracts a skin pigmentation area from the image;

a skin pigmentation correction value calculating device that calculates skin pigmentation correction values according to colors of the skin pigmentation area abstracted by said skin pigmentation area abstracting device and a predetermined skin pigmentation correction target value; and

a color correcting device that corrects the colors of the skin pigmentation area according to the skin pigmentation correction values calculated by said skin pigmentation correction value calculating device.

4. (ORIGINAL) The identification photo system as defined in claim 3, wherein said color correcting device corrects colors of all the image according to the skin pigmentation correction values calculated by said skin pigmentation correction value calculating device.

5. (ORIGINAL) The identification photo system as defined in claim 1, wherein said automatic correcting device comprises:

an area separating device that separates the image into a person area and a background area; and

a background changing device that changes colors of the background area to a predetermined color.

6. (PREVIOUSLY PRESENTED) The identification photo system as defined in claim 5, wherein said automatic correcting device further comprises:

an abstracting device that abstracts a print area required for the identification photo from the image according to the size of the image.

7. (ORIGINAL) The identification photo system as defined in claim 1, wherein said automatic correcting device comprises:

a cloth area abstracting device that abstracts a cloth area from the image; and

a cloth changing device that changes image data of the cloth area to image data of predetermined cloth.

8. (ORIGINAL) The identification photo system as defined in claim 1, further comprising a printer that prints the identification photo from the image data for the identification photo.

9. (CURRENTLY AMENDED) An image processing method in which image data for an identification photo of a person is obtained from image data of the person, said image processing method comprising the steps of:

abstracting a skin pigmentation area from an image of the person;

calculating skin pigmentation correction values according to colors of the abstracted skin pigmentation area and a predetermined skin pigmentation correction target value;

correcting the colors of the skin pigmentation area according to the calculated skin pigmentation correction values;

detecting a facial-background area of the person in said image data;

~~abstracts~~ abstracting a person area in said image data based on the facial-background area;

comparing a size of the person area in said image data with a predetermined size; and

changing the size of the image so that the size of the person area is the predetermined size.

10. (CURRENTLY AMENDED) An image processing system for generating identification image data from an original image data of a person, comprising:

an abstracting device configured ~~for determining~~ to determine a person area of the original image data based on a background area;

an image size correcting device configured ~~for changing~~ to change a size of the person area based on a predetermined image size; and

an image data generating device configured ~~for generating~~ to generate the identification image data based on the changed sized person area such that the identification image data includes a cut guidance area within a print area,

wherein the cut guidance area is smaller than the print area.

11. (CURRENTLY AMENDED) The system of claim 10, wherein the abstracting device data is ~~also configured for detecting~~ to detect a facial area of the person in the original image data ~~and abstracting the person area based on the facial-person area~~.

12. (CURRENTLY AMENDED) The system of claim 10, further comprising:

a color correcting device configured ~~for correcting~~ to correct at least one of density, color balance, luminance and saturation of an image of the person.

13. (CURRENTLY AMENDED) The system of claim 12, wherein the color correcting device comprises:

a skin pigmentation area abstracting device configured ~~for abstracting to~~
abstract a skin pigmentation area from the original image data;

a skin pigmentation correction value calculating device configured ~~for~~
~~calculating to calculate~~ skin pigmentation correction values according to colors
of the skin pigmentation area abstracted by the skin pigmentation area
abstracting device and a predetermined skin pigmentation correction target
value; and

a skin pigmentation correcting device configured ~~for correcting to correct~~
the colors of the skin pigmentation area according to the skin pigmentation
correction values calculated by said skin pigmentation correction value
calculating device.

14. (CURRENTLY AMENDED) The system of claim 10, wherein the image data generating device comprises:

a head position detecting device configured ~~for detecting to detect~~ a head
position of the person in the original image data; and

a cut guidance generating device configured ~~for generating~~ to generate a cut guidance in the print area based on the head position detected by the a head position detecting device.

15. (CURRENTLY AMENDED) The system of claim 14, wherein the cut guidance generating device is configured ~~for outlining~~ to outline the cut guidance area by at least one of: a solid line, a broken line, marks at corners, and ~~differentiating~~ configured to differentiate colors between the cut guidance area and a remainder of the printer area.

16. (NEW) The identification photo system as defined in claim 1, wherein said automatic correcting device is configured to determine the person area as being an area of the image data other than the background area.

17. (NEW) The identification photo system as defined in claim 1, wherein said automatic correcting device is configured to compare a plurality of areas of the image data with a reference background area and configured to determine each of the plurality of areas to be a part of the background area based on the comparison.

18. (NEW) The identification photo system as defined in claim 17, wherein the reference background area includes at least one corner area of the image data.

19. (NEW) The image processing method as defined in claim 9, wherein said step of abstracting the person area the image data comprises determining the person area as being an area of the image data other than the background area.

20. (NEW) The image processing method as defined in claim 9, wherein said step of detecting the background area comprises:

comparing a plurality of areas of the image data with a reference background area; and

determining each of the plurality of areas to be a part of the background area based on the comparison.

21. (NEW) The image processing method as defined in claim 20, wherein the reference background area includes at least one corner area of the image data.

22. (NEW) The system of claim 10, wherein said abstracting device is to determine the person area as being an area of the image data other than the background area.

23. (NEW) The system of claim 10, wherein said abstracting device is configured to determine the background area based a comparison of a plurality of areas of the image data with a reference background area.

24. (NEW) The system of claim 10, wherein the reference background area includes at least one corner area of the image data.

25. (NEW) A method for processing an image, comprising:
determining a background area of an image;
determining a person area of the image as an area of the image other than the background area of the image; and
sizing the image such that a size of person area of the image is a predetermined person area size.

26. (NEW) The method of claim 25, wherein the step of determining the background area of the image comprises:
separating the image into a plurality of areas; and

determining whether or not the each area of the plurality of areas belongs in the background area based on any one or more of

a comparison of the each area with a reference background area,

a size of the each area, or

an average coordinate of the pixels of the each area.

27. (NEW) The method of claim 26, wherein the step of separating the image into the plurality of area comprises:

comparing properties of adjoining pixels of the image; and

determining that the adjoining pixels belong in the same area if the compared properties of the adjoining pixels are less than predetermined thresholds for each property compared.

28. (NEW) The method of claim 27, wherein the properties of the adjoining pixels compared include:

luminance and chromaticity values; or

red (R), green (G) and blue (B) values.

29. (NEW) The method of claim 26, wherein the reference background area includes at least one corner of the image and wherein the step of determining whether or not the each area of the plurality of areas belongs in

the background area based on the comparison of the each area with the reference background area includes determining that the each area belongs in the background area if

a difference between an average luminance value of the pixels of the each area and an average luminance value of the reference background area is within a predetermined luminance difference threshold and a difference between an average chromaticity value of the pixels of the each area and an average chromaticity value of the reference background area is within a predetermined chromaticity difference threshold, or

a difference between an average red (R) value of the pixels of the each area and an average R value of the reference background area is within a predetermined R difference threshold, a difference between an average green (G) value of the pixels of the each area and an average G value of the reference background area is within a predetermined G difference threshold and a difference between an average blue (B) value of the pixels of the each area and an average B value of the reference background area is within a predetermined B difference threshold.

30. (NEW) The method of claim 26, wherein the step of determining whether or not the each area of the plurality of areas belongs in the background area based on the size of the each area includes determining that

the each area belongs in the background area if the size of the each is greater than a predetermined maximum area or less than a predetermined minimum area.

31. (NEW) The method of claim 26, wherein the step of determining whether or not the each area of the plurality of areas belongs in the background area based on the average coordinate of the pixels of the each area includes determining that the each area belongs in the background area if the average coordinate of the pixels of the each area is outside of a predetermined oval or circle with the center of the oval or the circle at the center of the image.

32. (NEW) The method of claim 25, further comprising abstracting a facial area based on the person area.

33. (NEW) The method of claim 32, wherein the step of abstracting the facial area based on the person area comprises determining that an area of the person area is the facial area when a color of the of the area is determined to be a skin pigmentation color.

34. (NEW) The method of claim 33, further comprising correcting the facial area to a target skin pigmentation color.

35. (NEW) The identification photo system as defined in claim 1, wherein said automatic correcting device is configured to separate the image data into an area such that two adjoining pixels are in the same area if a difference in data between the two adjoining pixels is smaller than a predetermined threshold, calculate a characteristic value of the area, detect the background area based on the characteristic value of the area, and abstract the person area in the image data based on the background area.

36. (NEW) The identification photo system as defined in claim 35, wherein said automatic correcting device is configured to detect the area as the background area if a difference in the characteristic value between a predetermined reference background area and an area adjoining the predetermined reference background area is smaller than a predetermined threshold.

37. (NEW) The identification photo system as defined in claim 36, wherein the predetermined reference background area includes at least one corner area of the image data or an area out of an oval that is smaller than the image with its center at a center of the image data.

38. (NEW) The identification photo system as defined in claim 35, wherein said automatic correcting device is configured to detect the area as the background area if a number of pixels in the area is larger than a first predetermined threshold or smaller than a second predetermined threshold.

39. (NEW) The identification photo system as defined in claim 35, wherein said automatic correcting device is configured to detect the area as the background area if an average coordinate of the pixels in the area is out of a circle or an oval with its center at a center of the image data.

40. (NEW) An image processing method in which image data for an identification photo of a person is obtained from image data of the person, the image processing method comprising the steps of:

dividing the image data into an area such that two adjoining pixels are in the same area if a difference in data between the two adjoining pixels is smaller than a predetermined threshold;

calculating a characteristic value of the area;

detecting a background area based on the characteristic value of the area; and

abstracting a person area in the image data based on the background area.

41. (NEW) The image processing method as defined in claim 40, wherein the step of detecting the background area includes:

determining that an area adjoining a predetermined reference background area is the background area if a difference in the characteristic value between the predetermined reference background area and the area adjoining the predetermined reference background area is smaller than a predetermined threshold.

42. (NEW) The image processing method as defined in claim 41, wherein the predetermined reference background area includes at least one corner area of the image data or an area out of an oval that is smaller than the image with its center at a center of the image data.

43. (NEW) The image processing method as defined in claim 40, wherein the step of detecting the background area includes:

determining that the area is the background area if a number of pixels in the area is larger than a first predetermined threshold or smaller than a second predetermined threshold.

44. (NEW) The image processing method as defined in claim 40, wherein the step of detecting the background area includes:

determining that the area is the background area if an average coordinate of the pixels in the area is out of a circle or an oval with its center at a center of the image data.